

## Klein Electronics, Inc. 2001

A. Descriptive Title of Invention: Trinity Series, Hands-Free Kit, Model K1000PI. This title refers specifically to a single wire, hands free, audio accessory which contains an In-Line push-to-talk button which operates the send/end function AND the two-way radio function of specific wireless phones, in addition to connecting directly into the base of these specific cellular phones and avoiding the need for additional adapters.

B. Background of the invention: Klein Electronics has been a manufacturer and distributor of audio accessories for over ten years. More recently, the organization and specifically, Richard Klein, has been involved in the concept and design of many new products. Due to the lack of differentiated and feature specific qualifications in various vertical markets, there has proven to be substantial opportunity in the design of new concepts and products.

iDen is a group of products made by Motorola that operates on wireless cellular and Two-Way Radio services both domestically and abroad. They offer a unique product called "Direct-Connect" which is a digital version of two-way radio communications. In the United States, this service is offered by Nextel Communications and Southern Link. The "Direct Connect" feature offers substantial advantages to previous cellular and two-way radio technologies. These differentiators have allowed them to become a leader in the cellular phone service industry and take over a substantial portion of the previous two-way radio markets.

With the combined experiences of audio accessories, two-way radio sales and service, and an authorized Nextel Dealership, Richard Klein saw a niche for a specific, feature driven audio accessory that was not yet available or manufactured. This unit has become our:

### Trinity Series, Hands-Free Kit, Model K1000PI

Klein Electronics evolved the concept of this item based on experience and customer feedback. The concept then went into full production on the detailed concept, detailed design, product tooling, production, sampling and testing, and then final production on the consumer product.

C. Brief Summary of Invention: The Trinity Series, Hands-Free Kit, Model K1000PI is an audio accessory which enables hands-free communication. The unique features and functions appropriating a US Patent are as follows: 1) single wire/ "in-line" design, 2) functioning "Push-To-Talk" button which operates the send/end feature of the cellular phone but MOST importantly the two-way radio or "direct connect" feature for Motorola/iDen Phones and Nextel/Mic/Southern Linc Services, and 3) easily connecting directly into the bottom of the cellular phones without requiring additional adapters or converters.

1. ear bud/earpiece-provides audio sound for user
2. wire connection between ear bud and in line microphone
3. in-line microphone for users to speak and communicate
4. wire connection between microphone and push to talk button
5. in-line push to talk button which operates the send/end feature of cellular phone and two way radio/ "direct connect" feature of phone
6. wire connection between in line push-to-talk button and phone connector unit
7. phone connector unit which provides direct plug into base of cellular phone, without requiring an additional adapter or converter

E. Detailed Description: The Trinity Series, Hands Free Kit, Model 1000 is an audio accessory which combines an ear bud or ear piece, an In Line "push-to-talk" button which operates the send/end feature of the cellular phone as well as the "direct-connect"/two way radio feature of the Nextel/Mike/Southern Linc mobile communication services and lastly, a connector on the bottom of the unit which connects directly into the base of the cellular phone providing a clear transmission of signals without the need of an additional adapter or connector. The unique and outstanding feature details are comprised of the following:

**A. Push-To-Talk Button:** The push-to-talk button is a significant differentiator for this product. This button acts as the send/end feature for any cellular calls, as well as operating the “direct-connect” feature for Nextel products. Motorola/Idea/Nextel phones have a button on the side of the phone which operates the two-way radio feature of the service. This button provides a half-duplex communication platform across a specific coverage area. The push-to-talk button on our accessory allows the user to operate this two-way radio feature by simply pressing and releasing the button on our single wire hands free audio accessory, thereby eliminating the need to hold the phone in the hand to communicate.

**B. In Line push-to-talk:** This feature is the result of designing the item to have all operating features and functionality in one "wire" or "cord". Historically the market has had a "two-wire" design for two way radio products. Traditionally it is split into two wires from the base with one going into the ear for audio, and the second wire containing the button which operates a push-to-talk function. The concept, design, and solution provided by our product provides an "In-line, single wire, hands free accessory with a functioning button which operates the two-way radio feature as well as answering and sending/initiating cellular phone calls.

**C. Direct Connection:** Our model is designed and manufactured with a direct connection into the base of the handheld phone. There is no additional “accessory” or “adapter” required to connect our **Trinity Series, Hands-Free Kit, Model K1000PI** into the base of the phones. This concept was included to provide additional “ease of use” functionality for the consumer.

F. **Claim:** I, Richard Klein of Klein Electronics Inc. claim this product, concept, design, functionality, technical specifications, and intellectual property are wholly differentiated and unique from any product currently manufactured. Additionally, I claim that I am the sole inventor of this product concept, design, and the tooling which was originally required for technical manufacturing.